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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Susan WHEELER et al. : **Mail Stop: PCT**  
Serial No. 10/581,683 : Attorney Docket No. 2006\_0850A  
Filed June 6, 2006 :

MASS SPECTROMETRY OF ARGININE-CONTAINING  
PEPTIDES

[Corresponding to PCT/GB2004/005210  
Filed December 8, 2004]

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ACCOUNT NO. 23-0975

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☒ each U.S. Patent and U.S. Patent application publication;
- ☐ each reference previously cited in the international application  
PCT/\_\_\_\_\_; and/or
- ☐ each reference previously cited in prior parent application Serial No.  
\_\_\_\_\_.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the  
above-entitled application, **or**

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

**and thus no certification and/or fee is required.**

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and**

**the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.
4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
  - b. ☐ a foreign patent office search report (in the English language) submitted herewith,
  - c. ☐ the concise explanation contained in the specification of the present application at page,
  - d. ☐ the concise explanation set forth in the attached English language abstract,
  - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☒ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Susan WHEELER et al.

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September 11, 2006

## INFORMATION DISCLOSURE STATEMENT

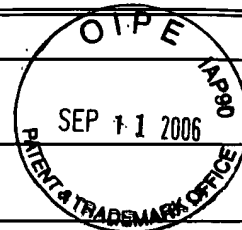
FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: September 11, 2006

ATTY DOCKET NO.  
2006\_0850ASERIAL NO.  
10/581,683APPLICANT  
Susan WHEELER et al.FILING DATE  
June 6, 2006

GROUP



## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	2003/0054570	3/2003	Qiu et al.			
	AB						
	AC						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AD	03/057845	7/2003	JP			
	AE	03/025576	3/2003	JP			
	AF						

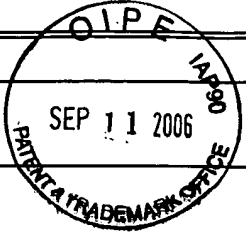
## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AG	M. Wehofsky et al., "Automated Deconvolution and Deisotoping of Electrospray Mass Spectra", Journal of Mass Spectrometry, Vol. 37, pp. 223-229, 2002.
	AH	M. Pohl et al., "Cyclic Disulfide Analogues of the Complement Component C3a", International Journal of Peptide and Protein Research, Vol. 41, No. 4, pp. 362-375, April 1, 1993.
	AI	M. D. Bauer et al., "Sequencing of Sulfonic Acid Derivatized Peptides by Electrospray Mass Spectrometry", Rapid Communications in Mass Spectrometry, Vol. 14, No. 10, pp. 924-929, 2000.
	AJ	S. Peyrottes et al., "The Synthesis of Peptide-Oligonucleotide Conjugates by a Fragment Coupling Approach", Tetrahedron, Vol. 54, No. 41, pp. 12512-12522, 1998..
	AK	S. G. Summerfield et al., "The Promotion of d-Type Ions During the Low Energy Collision-Induced Dissociation of Some Cysteic Acid-Containing Peptides", Journal of the American Society for Mass Spectrometry, Vol. 8, No. 1, pp. 25-31, January 1997.
	AL	S. Mourtas et al., "Resin-Bound Aminoethiols: Synthesis and Application", Tetrahedron Letters, No. 44, No. 1, pp. 179-182, January 1, 2003.
	AM	A. Leitner et al., "Probing of Arginine Residues in Peptides and Proteins using Selective Tagging and Electrospray Ionization Mass Spectrometry", Journal of Mass Spectrometry, Vol. 38, pp. 891-899, 2003.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 2 of 2		INFORMATION DISCLOSURE STATEMENT						
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>  Date Submitted to PTO: September 11, 2006			ATTY DOCKET NO. 2006_0850A		SERIAL NO. 10/581,683			
			APPLICANT Susan WHEELER et al.					
			FILING DATE June 6, 2006		GROUP			
U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	BA							
	BB							
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	BC							
	BD							
	BE							
	BF							
	BG							
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)								
	BH	J. F. Leite et al., "Investigation of Apparent Mass Deviations in Electrospray Ionization Tandem mass Spectrometry of a Benzophenone-labeled Peptide", Rapid Communications in Mass Spectrometry, Vol. 17, pp. 1677-1684, 2003.						
	BI	F. L. Brancia et al., "Improved Matrix-Assisted Laser Desorption/Ionization Mass Spectrometric Analysis of tryptic Hydrolysates of Proteins Following Guanidination of Lysine-Containing Peptides", Rapid Communications in Mass Spectrometry, Vol. 14, 2070-2073, 2000.						
	BJ	S. D. Friess et al., "Protein Structure Information from Mass Spectrometry? Selective titration of Arginine residues by Sulfonates", Journal of American Society for Mass Spectrometry, Vol. 12, pp. 810-818, 2001.						
EXAMINER				DATE CONSIDERED				

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